

State of Alaska FY2010 Governor's Operating Budget

Department of Environmental Conservation Air Quality Results Delivery Unit Budget Summary

Air Quality Results Delivery Unit

Contribution to Department's Mission

To conserve, improve, and protect Alaska's natural resources and environment and control air pollution, in order to enhance the health, safety, and welfare of the people of the state and their overall economic and social well being.

Core Services

- Issue air quality permits to facilities that release potentially harmful pollutants.
- Provide compliance assistance and enforcement (inspections and operating report reviews).
- Community assistance to protect air quality.
- Air quality assessments.
- Comment on federal air quality rulemakings with Alaska's perspective.
- Develop, implement, and enforce plans to bring areas out of compliance with federal air quality standards back into compliance.

End Result	Strategies to Achieve End Result
<p>A: Air quality is protected.</p> <p><u>Target #1:</u> No days when air is unhealthy for sensitive groups.</p> <p><u>Status #1:</u> The number of days the air is unhealthy for sensitive groups remains less than two weeks a year.</p>	<p>A1: Timely issue air quality permits.</p> <p><u>Target #1:</u> Issue or deny all construction and minor permits within 130 days after receipt of a completed application.</p> <p><u>Status #1:</u> Thirty-six permits were issued in a timely manner in FY 2008, an increase in timely performance of 20% despite an increase in workload of nearly 65%.</p> <p><u>Target #2:</u> Issue all air quality operating permit renewals within 180 days after receipt of a complete application.</p> <p><u>Status #2:</u> One air quality permit was issued within 180 days and two were issued later than 180 days during FY 2008. 76 complete renewal applications were pending at the end of the fiscal year.</p> <p>A2: Minimize pollution from gasoline vehicles.</p> <p><u>Target #1:</u> For communities that have vehicle Inspection and Maintenance (I/M) programs, 95% of vehicles are found to be in compliance with tailpipe emission requirements.</p> <p><u>Status #1:</u> Over 95% of the vehicles inspected for tailpipe emission compliance, known as the I/M program, were found in compliance in FY 2008, a 5% compliance improvement in two years.</p> <p>A3: Minimize pollution from stationary sources.</p> <p><u>Target #1:</u> All facilities requiring air quality permits are known to be in compliance.</p> <p><u>Status #1:</u> In FY 2008, 252 out of 461 stationary sources were known to be in compliance with air quality permits.</p>

Major Activities to Advance Strategies

- Establish and operate air monitors.
- Develop strategies to address particulate matter pollution problems.
- Implement a Quality Management System for permit and compliance services.
- Review federal rulemakings, determine impacts on Alaska, and need for comment.
- Oversee the implementation of the state's motor vehicle emission inspection and maintenance program.
- Conduct compliance inspections and in-office compliance reviews.
- Assist the Commissioner and the executive sub-cabinet in developing a climate change strategy.
- Improve on-line permitting services and compliance reporting for external users.

FY2010 Resources Allocated to Achieve Results

FY2010 Results Delivery Unit Budget: \$9,705,700

Personnel:

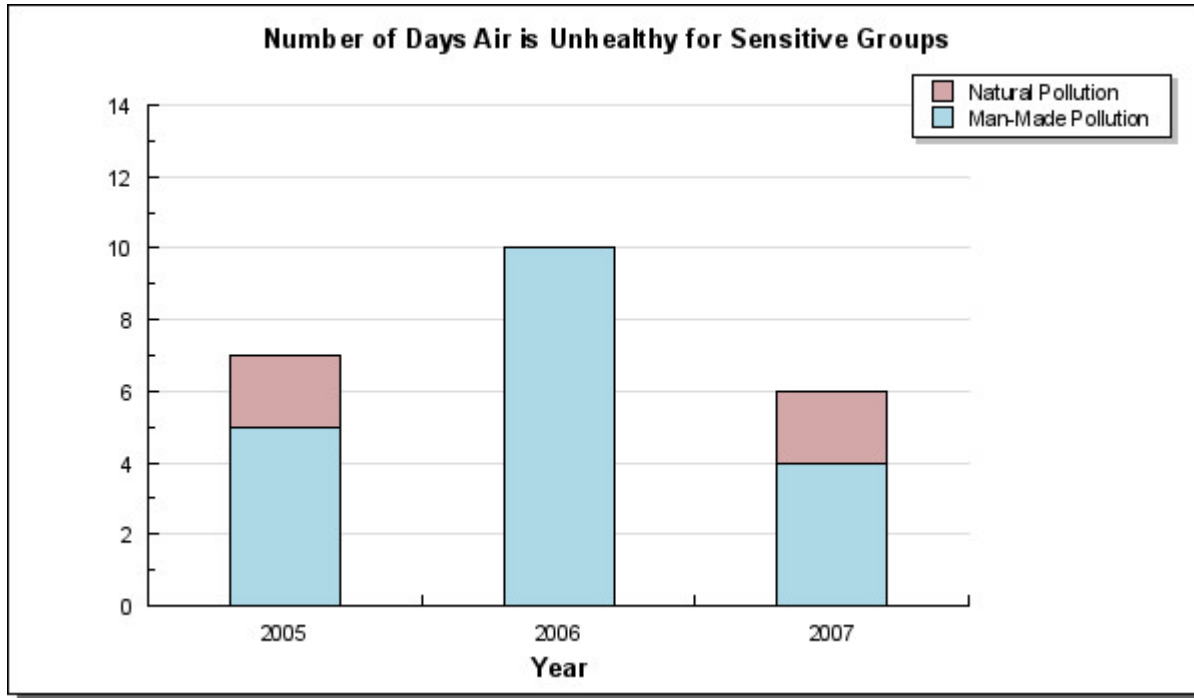
Full time	62
Part time	0
Total	62

Performance

A: Result - Air quality is protected.

Target #1: No days when air is unhealthy for sensitive groups.

Status #1: The number of days the air is unhealthy for sensitive groups remains less than two weeks a year.



Methodology: Data is calculated using sampling information from samplers in the Municipality of Anchorage, City and Borough of Juneau, the Fairbanks North Star Borough and the Mat-Su Valley.

Analysis of results and challenges: The data for the 2008 calendar year will be available in March 2009.

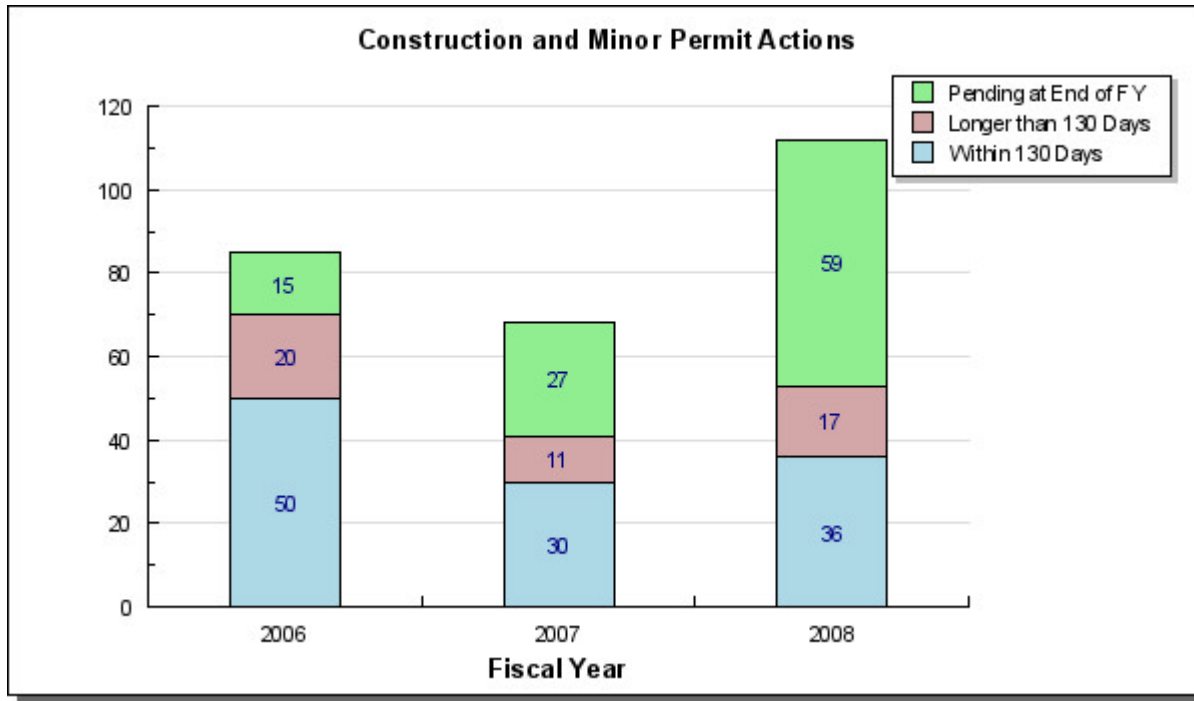
DEC has been collecting ambient air data in most major communities around the state for over 25 years. Air monitoring is performed to ensure compliance with the National Ambient Air Quality Standards designed to protect public health. The U.S. EPA sets health based standards for particulate matter and gaseous pollutants. In the state, the pollutants of concern are carbon monoxide, fine particulate matter and coarse particulate matter. Violations of the standards occur when the concentration of air pollution rises above the limit set either through natural events or through emissions from man-made sources. Natural pollution includes smoke from wild fires (fine particulate matter called PM_{2.5}), ash from volcanic eruption or windblown dust from gravel bars and other exposed gravel surfaces (coarse particulate matter called PM₁₀). Man-made pollution is produced by exhaust from combustion processes, such as diesel and gas vehicle emissions and emissions from home heating systems like wood stoves.

The chart shows the number of days the air quality was unhealthy for sensitive groups, i.e. children, the elderly, and people with heart or lung disease, over the last 3 calendar years. In 2005 and 2007 the natural events were caused by windblown dust. Since 2000 no violations of the Carbon Monoxide (CO) standards have been recorded. More information about DEC air monitoring projects throughout the state, including PM₁₀ and regional haze, can be found at <http://www.dec.state.ak.us/air/am/index.htm>.

A1: Strategy - Timely issue air quality permits.

Target #1: Issue or deny all construction and minor permits within 130 days after receipt of a completed application.

Status #1: Thirty-six permits were issued in a timely manner in FY 2008, an increase in timely performance of 20% despite an increase in workload of nearly 65%.



Methodology: Records of permits issued during the Fiscal Year and applications received but not issued. Days to issue permit is calculated from the date an application is found complete until permit is issued, less any days waiting for information from applicant, as recorded by the Department's AirTools Database

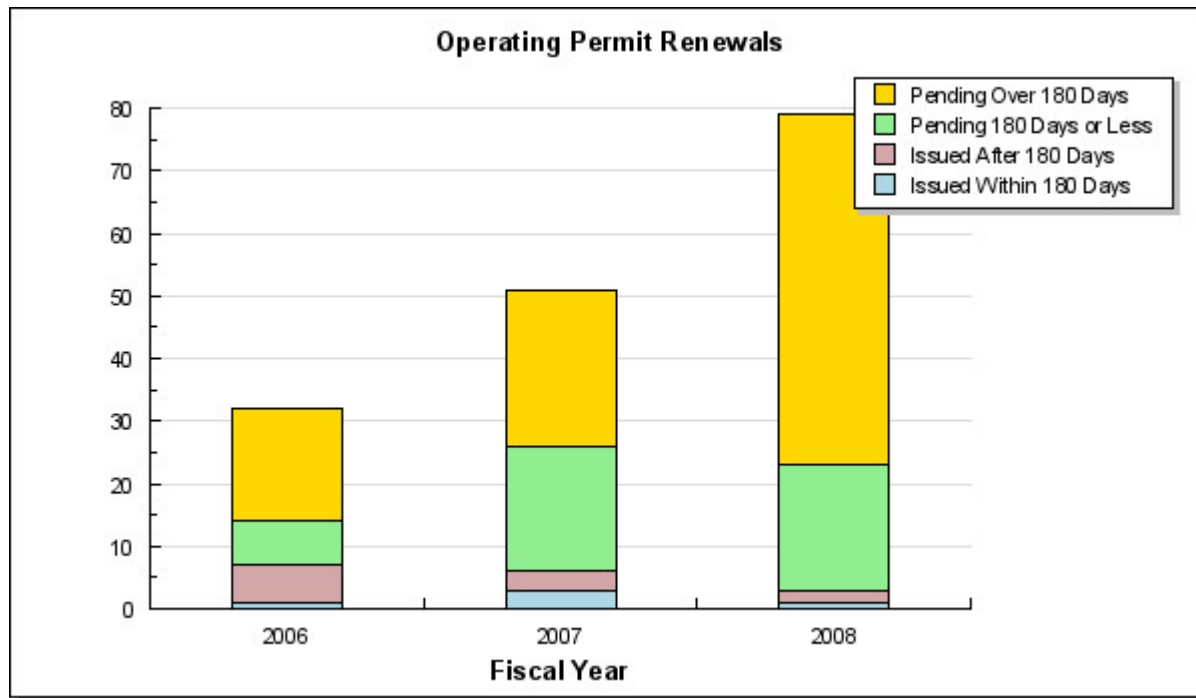
Analysis of results and challenges: Either an air quality construction permit or a minor permit is required before building or increasing an air pollution source. Timely issuance of these permits allows responsible development to proceed without unnecessary delay. FY 2008 saw a significant increase in development projects seeking permits.

The chart shows the total air quality construction and minor permit applications worked on during the fiscal year, with the exception of applications withdrawn. The pending category includes those applications received too late in the fiscal year to be acted on, applications still under review, and applications for which additional information is required from the applicant. Applications pending at the end of the fiscal year are typically completed during the subsequent fiscal year.

The data shows that the workload for air quality construction and minor permits increased from 68 applications in FY 2007 to 112 in FY 2008. The division was able to make effective use of contractor resources during the second half of FY 2008. The division issued more total permits and more timely permits in FY 2008, and continues to recover from the loss of critical experienced personnel in FY 2007. Note that the number of permit applications pending at the end of FY 2008 is greater than the total number of permits issued that year. The division will make every effort to make effective use of contractor resources, retain experienced staff, and quickly train newer staff to handle the increased workload for the upcoming fiscal year.

Target #2: Issue all air quality operating permit renewals within 180 days after receipt of a complete application.

Status #2: One air quality permit was issued within 180 days and two were issued later than 180 days during FY 2008. 76 complete renewal applications were pending at the end of the fiscal year.



Methodology: Records of permits issued during the Fiscal Year and applications pending (received but not issued). Time to issue permit is calculated from date an application is found complete until permit is issued, less any days waiting for information from applicant, as recorded in the Department's AirTools Database.

Analysis of results and challenges: Air quality operating permits require a facility to comply with all applicable air quality requirements, and establish self-monitoring conditions to verify compliance. Up-to-date operating permits ensure that the facility understands their current air quality obligations. A permit must be renewed and updated every five years.

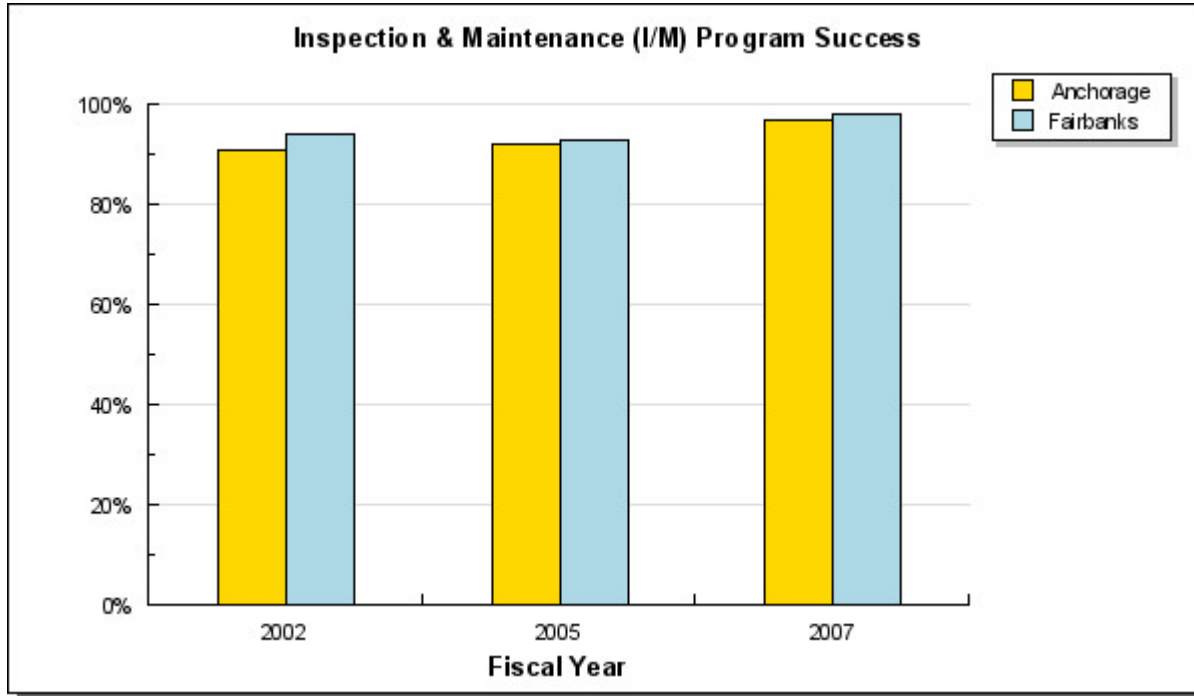
The department chose 180 days as its target processing time because renewal applications must be received 180 days before the existing permit expires. Most existing permits expired in FY 2007 and FY 2008. This is reflected in the chart in the large increase in pending applications. Pending applications include a count of all complete applications awaiting final processing at the end of the fiscal year. Those applications received too late in the fiscal year to be acted on, applications still under review, and applications for which additional information is required from the applicant.

The chart shows a trend of fewer renewal permits being issued each fiscal year. This was caused by the surge in workload, turnover of experienced permit staff, minimal use of contractor resources, and changing priorities placed on permit renewal versus compliance review. The Department has dealt with these deficiencies by establishing the performance measure; dedicating staff to an air quality operating permit renewal team, and making a more effective use of contractor resources. It is expected that significantly more permits will be issued in FY 2009, but progress in meeting the 180 day goal will take longer.

A2: Strategy - Minimize pollution from gasoline vehicles.

Target #1: For communities that have vehicle Inspection and Maintenance (I/M) programs, 95% of vehicles are found to be in compliance with tailpipe emission requirements.

Status #1: Over 95% of the vehicles inspected for tailpipe emission compliance, known as the I/M program, were found in compliance in FY 2008, a 5% compliance improvement in two years.



Methodology: A visual survey of in-use vehicles is conducted every other year in Anchorage and Fairbanks, recording the license plate and windshield information. Compliance rates are calculated from the data collected. The compliance rate is the ratio of the total number of vehicles found to be in compliance with the I/M program versus the total number of vehicles sighted during the survey that are required to meet the I/M requirements.

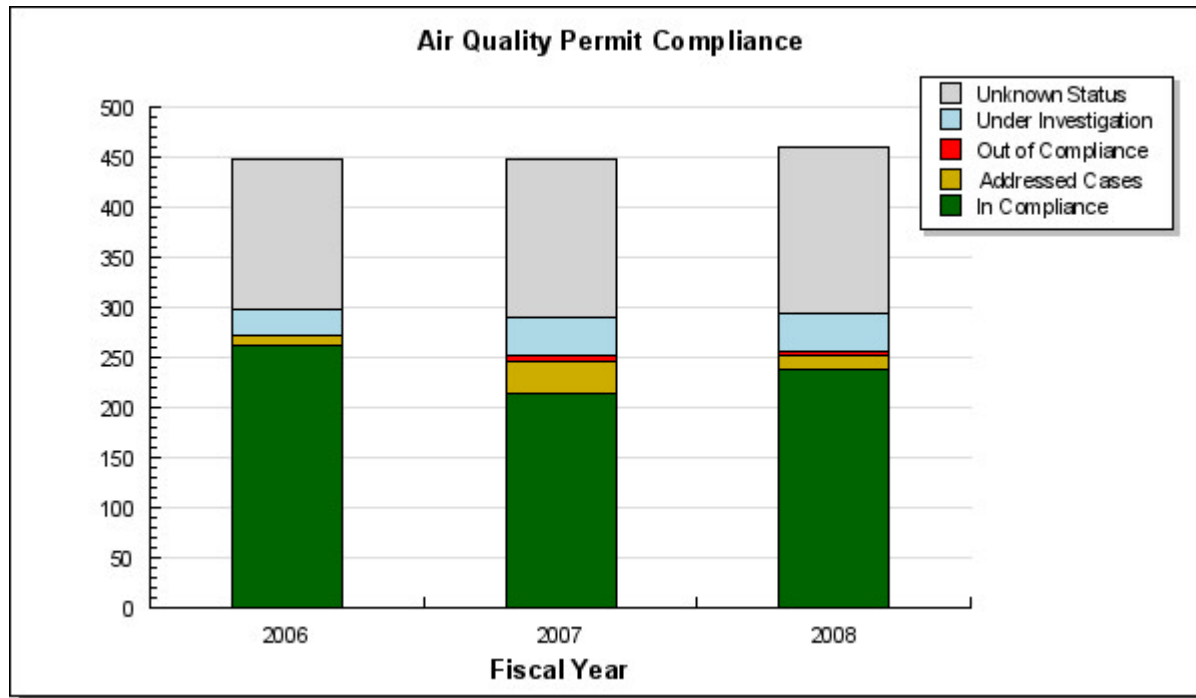
Analysis of results and challenges: Results indicate that efforts by local communities, the Department of Environmental Conservation and the Division of Motor Vehicles to educate and enforce I/M requirements are working. Compliance rates are at their highest levels since the start of the local programs in the mid 1980's. These compliance rates meet the commitment made in the State Air Quality Control Plan.

Challenges revolve around the continued necessity for education and enforcement as long as programs are in place. This is due to people moving in and out of I/M areas and the incentive for individuals to either evade or be out of compliance when costly vehicle emission component repairs are required.

A3: Strategy - Minimize pollution from stationary sources.

Target #1: All facilities requiring air quality permits are known to be in compliance.

Status #1: In FY 2008, 252 out of 461 stationary sources were known to be in compliance with air quality permits.



Methodology: Count of source in each category at the end of the fiscal year, as recorded in the Department's AirTools and Compliance tracking databases. "Unknown Status" includes all major sources which have not been evaluated for compliance in the past two years and all minor sources that have not been evaluated in the past five years.

Air Quality Permit Compliance

Fiscal Year	In Compliance	Addressed Cases	Out of Compliance	Under Investigation	Unknown Status	Total
FY 2008	238	14	5	38	166	461
FY 2007	214	33	6	37	158	448
FY 2006	262	10	0	26	150	448

Analysis of results and challenges: The state and federal compliance assurance agreement requires major and some minor sources' compliance status to be tracked. The Department changed the performance measure in FY 2008 to include all minor sources. The data for prior years presented above includes all minor sources. Roughly 250 sources are in compliance and 166 sources have unknown compliance. "Investigation" includes sources undergoing closer scrutiny to evaluate potential noncompliance. "Out of Compliance" includes sources for which the department has made a non-compliance determination. "Addressed cases" include sources found to be out of compliance but corrected through department action during the fiscal year.

The insignificant fluctuation from year to year for the status groups results from meeting the previous performance measure of ensuring compliance for major sources only. Under federal compliance reporting, status reverts to "unknown" if compliance was not evaluated in the past 2 years for major sources or 5 years for minor sources. The majority of the "unknown status" sources are minor sources not required to be evaluated under the state and federal compliance assurance agreement. Assessing the compliance status of these additional minor sources is a new initiative beginning in FY 2009.

Key RDU Challenges

EPA revised the airborne particulate matter health standard in December 2006. The new fine particle standard, PM_{2.5}, was set at a lower, more stringent value based on new medical evidence. Air monitoring data is showing that

Fairbanks and Juneau are not meeting this more stringent health-based standard. EPA plans to finalize the non-attainment designations for these areas in December 2008. The department will have three years to work with the local communities to develop the technical and policy information needed and finalize air quality control plans to reduce particulate levels to meet the air quality standard. In addition, EPA has retained the coarse particle standard, PM-10, at the same exposure limit. Air monitoring in rural communities has shown that several communities (Bethel, St. Mary's, Kotzebue and nearby villages) are not meeting the coarse particle health standard due largely to vehicle generated dust from unpaved roads and trails. A multi-year effort will be necessary between state, local, and tribal governments to develop a suite of dust control strategies that offer workable solutions to the pollution problem.

The Air Quality Division is working cooperatively with the Municipality of Anchorage to address local desires to revise the local vehicle emission inspection & maintenance (I/M) program. Through an ordinance passed in July 2008, the Anchorage Assembly desires to retain a local I/M program but remove it from the Alaska Air Quality Control Plan, if possible. The Air Quality Division has statewide oversight of the I/M program and will be working with the community to implement this local desire in a way that meets state and federal requirements.

Significant Changes in Results to be Delivered in FY2010

DEC has submitted an Alaska Air Quality Control Plan revision that would suspend the local vehicle emission inspection and maintenance program in Fairbanks in 2010 to EPA for approval. EPA is expected to complete its review and approval in a timely way to allow for the program to shutdown in early 2010. The Air Quality Division will continue to monitor for carbon monoxide in Fairbanks to insure that the ambient air quality health standard is maintained as required by federal regulations.

EPA has finalized several new air quality regulations and standards that will require the department to implement additional air monitoring within Alaska. During FY 2010, the Division expects to be adding ozone and lead to the pollutants included in the statewide air monitoring network.

Air permit reform, begun in 2003 under HB160, has been completed. We expect to maintain our progress by conducting quality management system audits and adjusting processes accordingly. Also a review and adjustment of permit administration and emission user fee rates are scheduled for FY 2009.

Major RDU Accomplishments in 2008

- The Air Non-Point and Mobile Source program completed and submitted to EPA for approval, revisions to the Alaska Air Quality Control Plan and the motor vehicle emission inspection & maintenance program (I/M) regulations that allow for suspension of the local Fairbanks I/M program in 2010.
- The Division made designation recommendations to EPA for areas in Alaska not meeting the fine particulate matter ambient air quality standards, including an analysis and proposal for problem area boundaries.
- Division staff, with local communities and other state agencies, worked to address coarse particulate matter (dust) issues in rural Alaska and fine particulate matter concerns in Fairbanks and Juneau.
- The Air Non-Point and Mobile Source program developed and implemented public education campaigns in rural Alaska and fine particulate matter problem areas to educate the public on health issues and actions individuals can take to protect themselves and reduce pollution.
- Air quality staff worked with rural electrical utilities to develop a transition plan to federal ultra low sulfur diesel requirements and alternatives to the New Source Performance Standards for diesel engines used for power generation in rural communities. This plan will be submitted to EPA in FY 2009.
- Areas of Alaska connected by road or the Alaska Marine Highway are continuing to successfully transition to cleaner diesel fuel which is gradually reducing roadway based emissions of harmful air pollutants for people in adjoining residential and pedestrian areas. The Division of Air Quality worked closely with refiners and fuel distributors to effect a smooth transition to meet federal ultra low sulfur diesel fuel requirements by October 15, 2006.
- In FY 2008 the air permits program issued one major air construction permit, twenty-five minor permits, and three administrative amendments for new industrial stationary sources and modifications to existing sources.
- Air permits staff investigated sixty-two citizen air pollution complaints. Staff prepared forty-eight on-site and thirty-four off-site full compliance evaluations of permitted stationary sources to help operators comply with air permits. Staff resolved forty-five compliance problems without the need for formal enforcement action. The air permits program prepared sixteen notices-of-violation. The program also issued two settlement

- agreements and one compliance order by consent.
- Proposed Best Available Retrofit Technology (BART) regulations went out to public review in May 2007. The BART control technology analysis and determination process will be on-going through FY 2009.
- EPA's final approval of Alaska's Air Quality State Implementation Plan for DEC's air permits program was published in the Federal Register on August 14, 2007. Update of program regulations to adhere to Federal standards will be on-going through FY 2009.
- The division adopted regulations to further streamline permitting regulations and update standard permit conditions.

Contact Information

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**Air Quality
RDU Financial Summary by Component**

All dollars shown in thousands

	FY2008 Actuals				FY2009 Management Plan				FY2010 Governor			
	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds	General Funds	Federal Funds	Other Funds	Total Funds
Formula Expenditures None.												
Non-Formula Expenditures												
Air Quality Director	244.2	0.0	0.0	244.2	254.7	0.0	0.0	254.7	257.3	0.0	0.0	257.3
Air Quality	1,351.1	1,049.2	4,103.8	6,504.1	1,423.0	1,748.6	6,019.8	9,191.4	1,624.3	1,759.6	6,064.5	9,448.4
Totals	1,595.3	1,049.2	4,103.8	6,748.3	1,677.7	1,748.6	6,019.8	9,446.1	1,881.6	1,759.6	6,064.5	9,705.7

Air Quality
Summary of RDU Budget Changes by Component
From FY2009 Management Plan to FY2010 Governor

All dollars shown in thousands

	<u>General Funds</u>	<u>Federal Funds</u>	<u>Other Funds</u>	<u>Total Funds</u>
FY2009 Management Plan	1,677.7	1,748.6	6,019.8	9,446.1
Adjustments which will continue current level of service:				
-Air Quality Director	2.6	0.0	0.0	2.6
-Air Quality	17.3	11.0	44.7	73.0
Proposed budget increases:				
-Air Quality	184.0	0.0	0.0	184.0
FY2010 Governor	1,881.6	1,759.6	6,064.5	9,705.7